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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,134	01/14/2004	James C. Nicholson	72255/00011	3828

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EXAMINER	
HANNON, CHRISTIAN A	

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/757,134	NICHOLSON, JAMES C.	
	Examiner	Art Unit	
	Christian A. Hannon	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: the claim ends in a semicolon as opposed to the required use of a period to end a claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by McFarland et al (US 6,853,197)

In regards to claims 1 & 7, McFarland et al teaches an antenna system comprising an antenna element for transmitting and receiving signals at radio frequencies (Figure 2, Item 210; McFarland et al), an antenna connector for establishing

a signal connection between the antenna element and a radio component (Figure 2, Item 215 & 240), an electronic serialization component for indicating at least one predetermined antenna characteristic, and adapted to read out the predetermined antenna characteristics through the antenna connector to the radio component (Column 4, Lines 51-59; McFarland et al). Furthermore McFarland et al also teaches the antenna system in addition to a wireless communication device comprising a radio component for exchanging wired electronic signals with wireless signals (Column 10, Lines 5-15; McFarland et al) in addition to the antenna system of claim 1.

Regarding claims 2 & 8, McFarland et al teaches the claims of 1 & 7 wherein the predetermined antenna characteristics are selected from a group including at least one of: antenna gain, operational frequency band, product model number and type of connection (Column 4, Lines 51-59).

In regards to claims 3 & 9, McFarland et al teach the art of claims 1 & 7 wherein the electronic serialization component comprises a circuit, wherein the predetermined antenna characteristics are coded into the circuit (Column 5, Lines 32-51; Column 10, Lines 40-47; McFarland et al).

Regarding claims 4 & 10, McFarland et al teach the art of claims 3 & 7 wherein the circuit comprises a semiconductor memory chip (Column 10, Lines 4-23).

In regards to claims 5 & 11, McFarland et al teach the art of claims 3 & 7 wherein the circuit comprises a threshold detection circuit for detecting a predetermined voltage threshold, corresponding to a predetermined antenna gain (Column 2, Lines 6-8; Column 6, Lines 35-57; McFarland et al).

Regarding claims 6 & 12, McFarland et al teach the art of claim 1 & 7 wherein the antenna element comprises a plurality of antenna elements in an antenna array (Column 3, Lines 52-56; McFarland et al).

In regards to claim 13, McFarland et al teach the wireless communications device of claim 7 wherein the antenna system is an integrally mounted antenna system (Column 1, Lines 57-60; Column 2, Lines 17-25; McFarland et al).

Regarding claim 14, McFarland et al teach the wireless communications device of claim 7 wherein the antenna system is an externally mounted antenna system (Column 10, Lines 24-39; McFarland et al).

In regards to claim 15, McFarland et al teach the wireless communications device of claim 7 wherein the radio component comprises at least one algorithm for varying at least one operational parameter in response to the predetermined antenna characteristics (Column 5, Lines 33-51; McFarland et al).

Regarding claim 16, McFarland et al teaches the wireless communications device of claim 15 wherein the predetermined antenna characteristics comprise antenna gain, and wherein the radio component algorithm sets antenna power so as to maintain antenna gain (Column 4, Lines 51-59; Column 8, Lines 61-67; Column 9, Lines 1-15; McFarland et al).

In regards to claim 17, McFarland et al teaches the wireless communication device of claim 7 wherein the radio component and antenna system are included in at least one of a wireless access point and bridge for use with wireless local area networks (Column 12, Lines 37-51; McFarland et al).

Regarding claim 18, McFarland et al teaches a method of antenna operation comprising, receiving an ID stream from an antenna serialization component, processing the ID stream so as to identify at least one predetermined antenna characteristics, varying at least one operation parameters of a radio component in response to the at least one predetermined antenna characteristic (Column 8, Lines 46-52, 56-60; Column 9, Lines 26-33; McFarland et al).

In regards to claim 19, McFarland et al teaches the method of claim 18 wherein the steps of processing and varying are implemented by an algorithm within the radio component (Column 10, Liens 41-47; McFarland et al).

Regarding claim 20, McFarland et al teaches the method of claim 18 wherein the at least one predetermined antenna characteristic comprises a predetermined antenna gain and the at least one operational parameter respectively comprises a predetermined radio component maximum output power level corresponding to the predetermined antenna gain (Column 4, Lines 51-59; Column 8, Lines 61-67; Column 9, Lines 1-15; McFarland et al).

In regards to claim 21, McFarland et al teaches the method of claim 18 wherein the at least one predetermined antenna characteristic comprises a predetermined radio component operational frequency range (Column 4, Lines 51-59; McFarland et al).

Regarding claim 22, McFarland et al teaches the method of claim 18 wherein the at least one predetermined antenna characteristic comprises a predetermined antenna component number, and wherein the at least one operational parameter respectively

comprises a command to disable the radio component if the predetermined antenna component number is not indicated (Column 4, Lines 47-59; McFarland et al).

In regards to claim 23, McFarland et al teaches the method of claim 18 further comprising a step of reading predetermined antenna characteristics over a network by a network administrator in a remote location (Column 2, Lines 37-43; McFarland et al).

Regarding claim 24, McFarland et al teaches the method of claim 18 further comprising a step of reprogramming the predetermined antenna characteristics in a serialization component via a network (Column 2, Lines 37-43; Column 13, Lines 10-36; McFarland et al).

In regards to claim 25, McFarland et al teaches a computer usable medium having computer readable program code embodied therein for effecting the radio component operation, the computer readable program code in a computer program product comprising instructions for receiving an ID stream from an antenna serialization component, instructions for processing the ID stream so as to identify at least one predetermined antenna characteristics and instructions for varying at least one operational parameters of a radio component in response to the at least one predetermined antenna characteristic (Column 12, Lines 64-67, Column 13, Lines 10-36; McFarland et al).

Regarding claim 26 McFarland et al teaches the computer program product of claim 25 wherein the instructions for processing and varying are implemented by an algorithm within the radio component (Column 10, Lines 41-47; McFarland et al).

In regards to claim 27 McFarland et al teaches the computer program product of claim 25 wherein the at least one predetermined antenna characteristic comprises a predetermined antenna gain and the at least one operational parameter respectively comprises a predetermined radio component power output level corresponding to the predetermined antenna gain (Column 4, Lines 51-59; Column 8, Lines 61-67; Column 9, Lines 1-15; McFarland et al).

Regarding claim 28, McFarland et al teaches the computer program product of claim 25 wherein the at least one predetermined antenna characteristic comprises a predetermined radio component operational frequency range (Column 4, Lines 51-59; McFarland et al).

In regards to claim 29, McFarland et al teaches the computer program product of claim 25 wherein the at least one predetermined antenna characteristic comprises a predetermined antenna component number, and wherein the at least one operational parameter respectively comprises a command to disable the radio component if the predetermined antenna component number is not indicated (Column 4, Lines 47-59; McFarland et al).

Regarding claim 30, McFarland et al teaches the computer program product of claim 25 further comprising instructions for reading predetermined antenna characteristics over a network by a network administrator in a remote location (Column 2, Lines 37-43; McFarland et al).

In regards to claim 31 McFarland et al teaches the computer program product of claim 25 further comprising instructions for reprogramming the predetermined antenna

characteristics in a serialization component via a network (Column 2, Lines 37-43; Column 13, Lines 10-36; McFarland et al).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Akiya discloses a transmission output power control circuit for controlling each of antennas to optimal states (US 6,236,841).

Reed et al discloses a method and apparatus for adapting antenna visibility in a wireless communications unit (US 6,823,180).

Elder et al discloses a fully integrated all-CMOS AM transmitter with automatic antenna tuning (US 6,687,488).

Kromer et al discloses a receiver control in a communication device by antenna de-tuning in strong signal conditions, and method therefor (US 5,745,844).

Flaxl discloses an automatic antenna tuning method and circuit (US 5,491,715).

Sugar et al discloses a system and method for antenna diversity using joint maximal ration combining (US 6,687,482).

Kim et al disclose a flexible correlation and queuing in CDMA communication systems (US 6,788,731).

Callaway, Jr. discloses an antenna system for a wireless information device (US 6,862,433).

Tesfai et al disclose a system and method for joint maximal ratio combining using time-domain signal processing (US 6,873,651).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571)272-7896. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quochien B. Vuong 5/5/05

CAH

QUOCHIEN B. VUONG
PRIMARY EXAMINER